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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,612	07/30/2003	Norihiko Furuta	488-00057	8673

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EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/630,612	Applicant(s) FURUTA, NORIHIKO	
	Examiner James F. Hook	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 4-11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 10, and 11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 8, and 10 of copending Application No. 10/619,897 in view of Doane. The claims of the '897 application disclose all of the recited structure to the connection in combination with a conduit with the exception of stating specific connector structure in combination with specific conduit structure. The patent to Doane discloses that it is old and well known in the art to utilize a connector with a hose of a specific structure including metal corrugated inner layers, and fiber reinforced outer layers, as such is old and well known in the art to combine this type of hose with a specific type of connector.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Odru in view of Malcarne, Jr. The patent to Odru discloses the recited hose comprising an inner layer 9 having a corrugated metal tube, outer layer 1 circumscribing a radial outer side of the inner layer, and a plurality of reinforcing layers 2,3,4,5,6, 7, and 8 having reinforcing filament members included in what is considered the outer layer which is formed of the plurality of layers outside of the inner layer, the filament members are arranged at a winding angle with respect to an axis, and where the layers 3,5,7 are considered the equivalent of a canvas ply in that they are formed with warp and weft fibers that are braided together. The patent to Odru discloses all of the recited structure with the exception of forming the woven layers with the warp fiber being substantially parallel to an axis or at least disposed at an angle 40 degrees or less, and forming the corrugations as annular corrugations, however, Odru does suggest that the angle is not large, see col. 2, lines 40-43. It would have been obvious to one skilled in the art to orient the woven layers in Odru to be of any small angle including substantially parallel to the longitudinal axis or at least less than 40 degrees as such is merely a choice of mechanical expedients to use routine experimentation to vary the angle of the woven

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layer such that one warp fiber is substantially parallel as such would require only routine experimentation to arrive at optimum values. The patent to Malcarne, Jr. discloses that it is old and well known in the art to form tubes of corrugated metal tubing and outer reinforcing layers where the corrugations can be either annular or helical, see paragraph 0010 of the reference. It would have been obvious to modify the corrugations in Odru by substituting an inner layer provided with annular corrugations for the helical corrugated compound tube where it is old and well known in the art that either type of corrugation can be used on metal corrugated reinforced tubes as suggested by Malcarne, Jr. and such would provide an inner tube that would be flexible but would not have seams that could provide leaks and premature failure thereby extending the life of the tube and saving money.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doane in view of Malcarne, Jr. The patent to Doane discloses the recited hose comprising an inner layer 3 having a corrugated metal tube, outer layer 7 circumscribing a radial outer side of the inner layer, and a plurality of reinforcing layers 9, 4, 10, and 5 where layer 4 is braided and seen to have filaments that are at an angle to a neutral angle. extending to either side of it, as well as other layers 5, 9, and 10 which show wound elements at a high angle to the axis of the tube, and therefore to a neutral angle. The patent to Doane discloses all of the recited structure with the exception of forming the corrugations of annular as opposed to helical configuration, and the angles of the plies with respect to one another. It is considered an obvious choice of mechanical expedients to use routine experimentation to arrive at optimum values for the angles of

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the reinforcing layers as such merely requires routine skill in the art to achieve, and it would have been obvious to one skilled in the art to alter the angles of the various reinforcing layers with respect to one another to achieve optimum results where such would only require routine skill in the art and experimentation. The patent to Malcarne, Jr. discloses that it is old and well known in the art to form tubes of corrugated metal tubing and outer reinforcing layers where the corrugations can be either annular or helical, see paragraph 0010 of the reference. It would have been obvious to modify the corrugations in Doane by substituting annular corrugations for the helical corrugations where it is old and well known in the art that either type of corrugation can be used on metal corrugated reinforced tubes as suggested by Malcarne, Jr.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Odru in view of Malcarne, Jr. as applied to claims 1, 4, and 9 above, and further in view of Feher. The patent to Odru as modified discloses all of the recited structure above with the exception of providing a specific type of connector and forming the end of the corrugated tube with a straight walled portion. The patent to Feher discloses that it is old and well known to provide connectors on the ends of corrugated reinforced tubes that are provided with a straightened end portion 60 of a corrugated tube 18, a rigid inner conduit 12 provided with a groove 52 to receive a portion of a collar 14 which is bent or compressed around the straight portion to clamp the corrugated tubing to the pipe shaped connecting part 12. It would have been obvious to one skilled in the art to modify the conduit in Odru as modified by providing a connector that has a tubular body

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portion with a groove, and a collar which engages the groove and captures a straight portion of the inner corrugated duct as suggested by Feher where such would provide a connector that would securely attach the tube to other articles in a secure manner and prevent premature failure of the joint thereby saving money.

Response to Arguments

Applicant's arguments with respect to claims 1 and 4-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

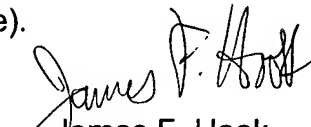
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Rivest, James, Jr., O'Brien, Scales, Lawrence, Igarashi, and Berger disclosing state of the art hoses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3754

JFH